
ARCHITECTURE AND URBAN PLANNING

DOI 10.15826/rjct.2017.2.004

УДК 72.04-72.036(574)

Priemets O.N.¹, Samoilov K. I.², Zhubanova A. K.³

¹⁻³ Kazakh State Academy of Architecture and Civil Engineering,
Almaty, Kazakhstan

E-mail: ¹oksana.priemets@mail.ru, ²samconiv@mail.ru, ³ainurzhubanova@gmail.com

THE SATURATION RATE OF THE FACADES WITH ORNAMENTED ELEMENTS AS A TOOL OF HISTORICAL AND ARCHITECTURAL ANALYSIS

Abstract. Ornamentation of the various elements of the facades is sufficiently a widespread method of the architectural composition. For historical and architectural analysis it would be expedient to have such tool as a quantitatively formalized measure of saturation of the facades with ornamented elements. To create this tool, it is necessary to distinguish several groups of architectural elements in the compositional decision of which ornaments were applied. These elements can be: ornamented cornices and sashes, columns and pilasters, platbands and framing, decorative panels and inserts.

As an example, we use the process of development of the architecture of Almaty in the late 19th — early 21st centuries.

There is a presence of pronounced regional specific in the architecture of Kazakhstan of the 20th century and it can be used as a basis for formalization. This formalization is built up on the development of ornament which has a number of prominent features in the architecture of Almaty in the end of 20th and the beginning of 21st century. One of them is a strongly marked waviness in quantitative saturation with patterned elements of those or other parts of the buildings and structures.

Testing this tool application for analyze of the other countries architecture development during more than one century will yield interesting results.

Keywords: architectural ornament, architectural composition, facade, architecture of Kazakhstan.

Приемец О. Н.¹, Самойлов К. И.², Жубанова А. К.³

¹⁻³ Казахская головная архитектурно-строительная академия,
Алматы, Казахстан

E-mail: ¹oksana.priemets@mail.ru, ²samconiv@mail.ru, ³ainurzhubanova@gmail.com

ПОКАЗАТЕЛЬ НАСЫЩЕННОСТИ ФАСАДОВ ОРНАМЕНТИРОВАННЫМИ ЭЛЕМЕНТАМИ КАК ИНСТРУМЕНТ ИСТОРИКО-АРХИТЕКТУРНОГО АНАЛИЗА

Аннотация. Декорирование различных элементов фасадов является достаточно распространенным методом архитектурной композиции. Для историко-архитектурного анализа целесообразно иметь такой инструмент, как количественно оформленная мера насыщения фасадов орнаментальными элементами. Для создания этого инструмента необходимо выделить несколько групп архитектурных элементов, в композиционном решении которых применялись орнаменты. Этими элементами могут быть: орнаментированные карнизы и пояса, колонны и пилястры, наличники и обрамления, декоративные панно и вставки. В качестве примера использован процесс развития архитектуры Алматы в конце XIX — начале XXI в.

В архитектуре Казахстана XX в. присутствует ярко выраженная региональная специфика, и она может быть использована в качестве основы для формализации. Формализация строится на основе развития орнамента, который имеет ряд характерных особенностей в архитектуре Алматы в конце XX — начале XXI в. Одной из них является сильно выраженная переменчивость в количественном насыщении узорными элементами тех или иных частей зданий и сооружений.

Тестирование этого метода на анализе развития архитектуры других стран в течение более чем одного столетия может дать интересные результаты.

Ключевые слова: архитектурный орнамент, архитектурная композиция, фасад, архитектура Казахстана.

Ornamentation of the various elements of the facades is sufficiently a widespread method of the architectural composition. Thus, for historical and architectural analysis it would be expedient to have such tool as a quantitatively formalized measure of saturation of the facades with ornamented elements. This allows to reveal a number of additional features in order to study the development of the creative thinking of the design authors on the basis of their personal vision or direct recommendation of the principles and the specific reflections of the modern period of architectural evolution. To create this tool, it is necessary to distinguish several groups of architectural elements in the compositional decision of which ornaments were applied. These elements can be: ornamented cornices and sashes, columns and pilasters, platbands and framing, decorative panels and inserts. Occurring diversity of ornamented compositions in the elements is also reflected in the counting. For example, the same decorative panels are considered as one element and the panles with various ornamented compositions — as a few.

The use of this tool is best for such presence of pronounced regional specific as in the architecture of Kazakhstan of the 20th century [1]. As a basis for such formalization there was used the development of ornament which has a number of prominent features in the architecture of Almaty in the end of 20th and the beginning of 21st century [2]. One of them is a strongly marked waviness in quantitative saturation with patterned elements of those or other parts of the buildings and structures. The estimation of the different types of ornamented compositions on these elements gave the results shown in the Table 1.

Table 1

**Quantity of ornamented elements on the buildings
according to periods of time**

Groups of elements	Period, years					
	1890/1920	1930/1940	1950	1960	1970/1980	1990/2010
Ornamented cornices and sashes	12	21	41	3	1	32
Ornamneted columns and pilasters	1	26	59	1	1	8
Ornamented platbands and framings	13	47	54	1	4	15
Ornamented panels and inserions	3	35	55	30	127	32
Total of species of ornamented elements	29	129	209	35	133	87
Total of analyzed buildings	17	51	50	27	115	41

Groups of elements	Period, years					
	1890/1920	1930/1940	1950	1960	1970/1980	1990/2010
Average quantity of ornamented elements on the building	1,71	2,53	4,18	1,29	1,16	2,12

In the period of 1890–1920 years the use of ornamental compositions was revealed in seventeen buildings. The most characteristic examples are: Turkestan Cathedral, Pushkin Street; “Iskhaq Gabdulvalliev and Sons” Trading house Zhibek Joly avenue; Golovizin’s house, Kurmangazy street; Tatarinov’s House, Bogenbai Batyr street (Fig. 1). Herewith, ornamented cornices and sashes were met in twelve cases, ornamented columns and pilasters — in one case, ornamented frames and platbands — in thirteen cases, ornamented panels and inserts — in three cases. Total of species of ornamented elements — 29; average saturation — 1.71 (preferably — two: cornices and belts, trims and frames). Patterns in the form of carved wood and metal compositions are mainly represented by a geometric theme with emphasized insertions of S-shaped curls in various combinations with petals [3]. There are also molded low-raised compositions preferably of a plant thematic.

In the period of 1930–1940 the use of ornamental compositions was found in fifty one building. The most characteristic examples are: “KazPivo” trust Kabanbay Batyr street; Residential house, Tole bi street; Library, Tole bi street; Opera and Ballet Theatre named after Abay, Kabanbay Batyr street; Residential house, Seyfullin avenue; Residential house, Abylay Khan avenue; Residential house, Gogol street; Administrative building, Kazybek bi street (Fig. 2).

Herewith, the ornamented cornices and sashes were met in 21 cases, ornamented columns and pilasters — in 26 cases, ornamented framings and platbands — in 47 cases, ornamented panels and inserts — in 35 cases. Total species of ornamented elements — 129; average saturation — 2.53 (preferably — to the same degree two or three: frames and platbands, panels and inserts, as well as columns and pilasters). Basically stucco patterns are presented in a variety of themes, mostly in double-plane solutions with emphasis on the traditional equivalence of patterns and the background. It is significant that in this period there was a tendency for the synthesis of the traditional spiral curl with Ionic volute [4]. Ornamented stucco pilasters that interpret the form of traditional wooden carved Central Asian columns are being widely spread. By the end of the period palm foliar capitals with ornamental accents and ornamented belts at the junction of columns or pilasters of the barrel with the base started to be massively applied.



Fig. 1. Examples of complex ornamental solutions 1890–1920s: 1 — Cathedral, Pushkin Street; 2 — “Ishaq Gabdulvalliev and Sons” Trading house Zhibek Joly avenue; 3 — Golovizin House, Kurmangazy street; 4 — Tatarinov House, Bogenbai Batyr (photos by the authors)



Fig. 2. Examples of complex ornamental solutions of 1930–1940s: 1 — Residential house, Seyfullin avenue;
2 — Residential building, Abylay Khan avenue; 3 — Residential house, Gogol street; 4 — Administrative Building,
Kazybek bi street (photos by the authors)

In the period of 1950 there was revealed the use of ornamental compositions in fifty buildings. The most characteristic examples are: The Government House, Astana square; Kazpotrebsoyuz House, Tole bi street; Residential house, Zhibek Joly avenue; Residential house, Kabanbay Batyr street; Veterinary Institute, Abai avenue; House of Political Education, Abylay Khan avenue; entrance archway of the Recreation Park, Gogol street; Residential house, Abylay Khan avenue; Airport terminal, Maylin street; Agricultural Institute, Abai avenue; Academy of Sciences, Shevchenko street; Kazpotrebsoyuz Club, Bogenbai Batyr street; Aviators

Club Maylin street; Cinema “Kazakhstan”, Seyfullin street; Hospital, Abai avenue; Pedagogical Institute, Gogol street. This ornamented cornices and belts were met in 41 cases, ornamented columns and pilasters — in 59 cases, ornamented frames and platbands — in 54 cases, ornamented panels and inserts — in 55 cases. Total species of ornamented elements — 209; average saturation — 4.18 (preferably — four: columns and pilasters and other elements). Keeping the thematic variety of the previous period, stucco patterns are increasingly being used as a high-relief sculptures even though the double-plane solution remains dominant (Fig. 3). Mass applied to The



Fig. 3. Examples of complex ornamental solutions of 1950s: 1 — Veterinary Institute, Abai street; 2 — House of Political Education, Abylay Khan avenue; 3 — Entrance archway, Gogol street; 4 — Residential building, Abylay Khan avenue (photos by the authors)

synthesis of the spiral curl with the Ionic volute is applied massively, it attaches even more ornamental richness to the palm foliar capitals [5].

In the period of 1960s the use of ornamental compositions was revealed in the twenty-seven buildings. The most characteristic examples are: Residential building, Rayymbek avenue; Residential building, Beregovoi street; “Arman” cinema, Dostyk avenue; Residential building, Furmanov street (Fig. 4). This ornamented

cornices and sashes were met in 3 occasions, ornamented columns and pilasters — in 1 case, ornamented frames and platbands — in 1 case, ornamented panels and inserts — in 30 cases. Total species of ornamented elements — 35; average saturation — 1.29 (mainly — one: ornamental inserts and panels). Patterned panel compositions that cover the entire height of the façade, in their majority become multicolor, keeping the low relief of spatial solutions [6].



Fig. 4. Examples of integrated solutions of ornamentation of the 1960s: 1 — Residential house, Raiymbek avenue; 2 — Residential building, Beregovoi street; 3 — “Arman” cinema, Dostyk avenue; 4 — Residential building, Furmanov street (photos by the authors)

In the period of 1970–1980s the use of ornamental compositions was found in one hundred and fifteen buildings. The most characteristic examples are: airport terminal, Zhibek Joly avenue; Residential building, Tole bi street; Grocery store, Zhibek Joly avenue; Residential building, Gogol street; Residential building, Maulenov street; Residential house, Zhibek Joly avenue; Palace of students, Timiryazev street; Telecenter, Timiryazev street; Residential building, Navoi street; “Baikonur” cinema, Mustafin street; Residential building, Al Farabi avenue; University building, Timiryazev street (Fig. 5).

In this case ornamented cornices and sashes were met in 1 case, ornamented columns and pilasters — in 1 case, ornamented frames and platbands — in 4 cases, ornamented panels and inserts — in 127 cases. Total species of ornamented elements — 133; average saturation — 1.16 (mainly — one: ornamental inserts and panels in the vast majority). The variety of thematic patterns is concentrated in low- and high-relief monochrome compositions mostly of balcony fences, ornamented lattice are widely spread [7].

In the period of the 1990–2000s the use of ornamental compositions was observed in forty one building. The



Fig. 5. Examples of complex ornamental solutions of 1970–1980s: 1 — Residential building, Maulenov street; 2 — Residential building, Zhibek Joly avenue; 3 — Students’ Palace, Timiryazev street; 4 — Telecenter, Timiryazev street (photos by the authors)

most characteristic examples are: the mosque, Pushkin Street; “Zhety Kazyna” restaurant, Makatayev street; “Capital Center” residential complex, Abylay Khan avenue; residential buildings (reconstruction), Furmanov and Raiymbek streets intersection; Sports Palace named after Baluan Sholak (reconstruction), Abai avenue; residential buildings, Gagarin street; Business center “Park View Office Tower”, Kunayev street; residential building, Tulebayev street; “Shashu” restaurant, Timiryazev street (Fig. 6). Herewith, ornamented cornices and sashes were met in 32 cases, ornamented columns and pilasters — in

8 cases, ornamented frames and platbands — in 15 cases, ornamented panels and inserts — in 32 cases. Total species of ornamented elements — 44; average saturation — 2.12 (preferably two and a tendency 2–3: cornices, sashes, panels and inserts, as well as platbands and framing in the perspective). An interesting feature of the period was the revival of epigraphic ornamented decor, as well as distribution of overhead lattice compositions. In contrast to previous periods the dominant pattern becomes an S-shaped curl in different combinations, interpreting ornamental composition applied to the state symbols of the country [7].

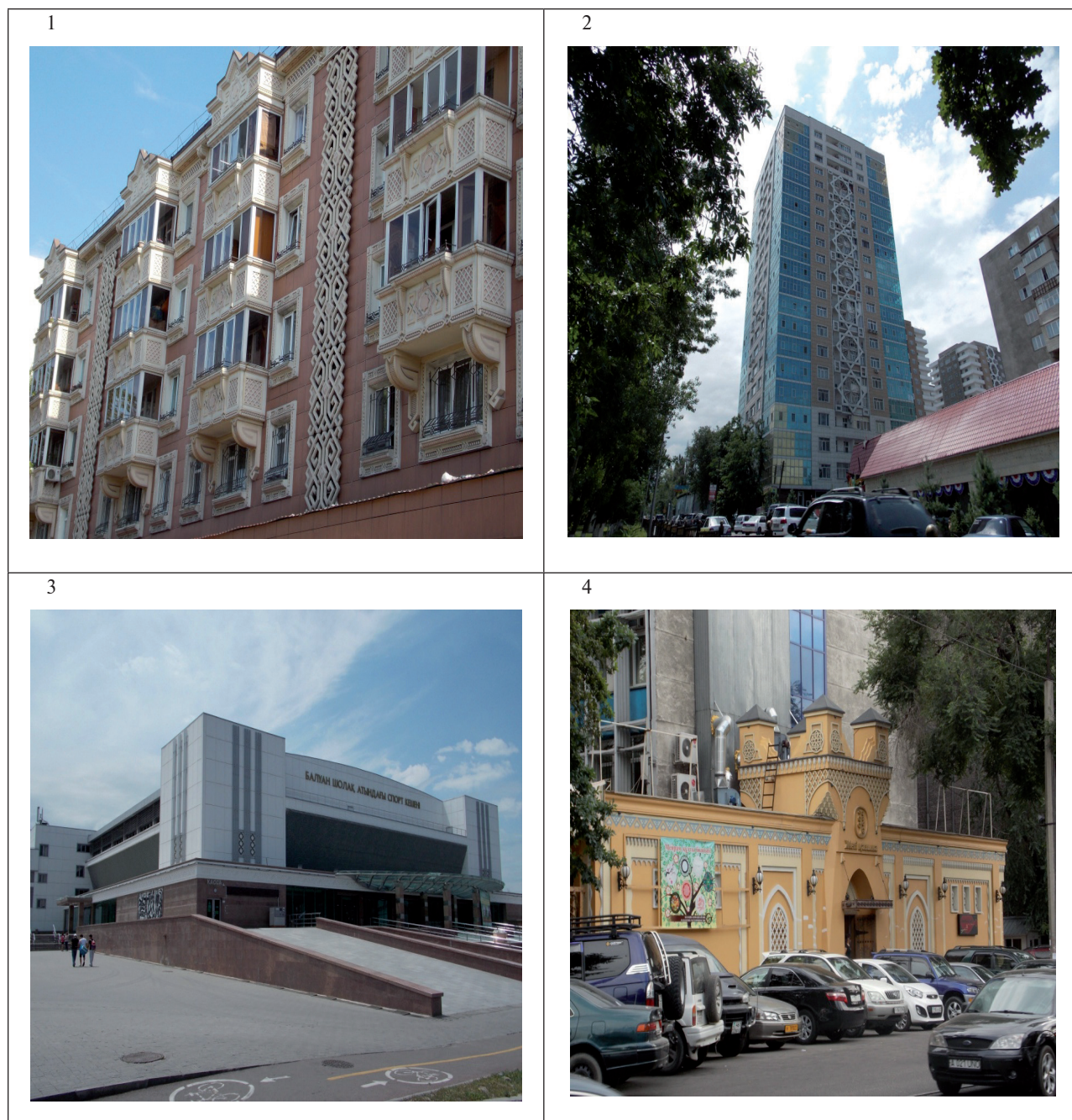


Fig. 6. Examples of complex ornamental solutions of 1990–2000s: 1 — Residential building, Raiymbek avenue (reconstruction); 2 — Residential building, Gagarin street; 3 — Sports Palace named after Baluan Sholak, Abai avenue (reconstruction); 4 — “Zhety Kazyna” Restaurant, Makatayev street (photos by the authors)

Thus, the above calculations of quantitative saturation of the various elements of buildings and structures built between the end of the previous century and the beginning of this century reveals a number of interesting features of compositional, thematic and plastic character, which allows not only to clarify a number of parameters of the architectural ornament and decoration by period, but also to a certain extent predict further development of this interesting phenomenon in the Kazakhstani architecture. It is significant that during the research the feasibility of structuring by periods of no more than 10 years was revealed, as a greater temporal coverage in some way veils total number of important nuances. For example, combining into one element the periods of 1990s, 2000s and 2010s leveled an important phenomenon of minimal usage of the ornamented compositions in the 1990s, a gradual increase in the number of ornamented elements in the 2000s and their mass distribution in the 2010s. Interesting points were met in the 1970s as well, in contrast to 1980s, though the decades of 1890–1920s combined together do not differ from each other according to the usage of ornaments. These features are the subject of ongoing research by the authors.

Presumably, testing the application of this tool to analyze the development of the architecture of other countries during more than one century will yield interesting results. They may be referred to the specificity of refinement, not only for personal and creative interpretation of the vision of the authors themselves and the guidelines of private, corporate, or public-national customers in the architectural works, but also to the specificity of pure or composite materials, structurally caused by the use of ornaments.

References

1. Samoilov K. I. *Arkhitektura Kazakhstana XX veka (razvitiie arkhitekturno-khudozhestvennykh form)* [Architecture of Kazakhstan of the 20th century (The development of the architectural and artistic forms)]. Moscow, Almaty, M-Ari design Publ., 2004. 940 p. (In Russ.).
2. Priemets O. N. *Razvitiie arkhitekturnogo ornamenta v zodchestve Kazakhstana XX — nachala XXI veka (na primere g. Almaty)* [The development of the architectural ornament of Kazakhstan in 20th — early 21st centuries (for example of city Almaty)]. Ph.D. thesis]. Bishkek, 2015. 21 p. Available at: <http://arch.kyrlibnet.kg/uploads/KGUSTA.PRIEMETS%20OKSANA%20NIKOLAEVNA.2015.pdf>. (In Russ.).
3. Meuser Ph. *Ästhetik der Leere: moderne Architektur in Zentralasien. Estetika pustoty. Sovremennaiia arkhitektura v Tsentral'noi Azii*. Berlin, DOM publishers, 2002. 151 p. (In German + Russ.).
4. Mal'chik A. Iu. *Rol' ornamenta v formirovanii arkhitektury Kyrgyzstana (Genezis, evoliutsiia, natsional'nye traditsii)* [The Role of Ornament in forming architecture of Kyrgyzstan (Genesis, Evolution, National Traditions)]. Bishkek, Raritet Info Publ., 2010. 148 p. (In Russ.).
5. Priemets O. N. Ornamental'nye kompozitsii v arkhiterture Almaty kontsa XIX — nachala XXI vekov (kolichestvennyi analiz primeneniia) [Ornamental composition in the architecture of the Almaty of the late 19th — early 21st century (quantitative analysis of the application)]. *Materialy Mezhdunarodnoi nauchno-prakticheskoi konferentsii "Aktual'nye problemy bol'shogo goroda: arkhitekturnaia teoriia i praktika"* [Materials of the International Scientific and Practical Conference "Actual problems of the big city: architectural theory and practice"]. Almaty, 2013. Available at: <http://libed.ru/konferencii-stroitelstvo/377025-1-1-udk-6202-bbk-303ya73-a-56-materiali-mezhdunarodnoy-nauchno-prakticheskoy-konferencii-aktualnie-problemi-bolsh.php>. (In Russ.).
6. Tuiakbaeva B. T. *Almaty: drevnii, srednevekovyi, kolonial'nyi, sovetskii etapy urbanizatsii* [Almaty: ancient, medieval, colonial, Soviet stages of urbanization.]. Almaty, World Discovery Publ., 2008. 245 p. (In Russ.).